

Message

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**From:** Amoroso, Cathy [Amoroso.Cathy@epa.gov]  
**Sent:** 9/20/2021 8:29:13 PM  
**To:** Alexander, Shanna [Alexander.Shanna@epa.gov]  
**CC:** Adams, Glenn [Adams.Glenn@epa.gov]  
**Subject:** RE: request for your help

**Importance:** High

Thanks Shanna. Glenn and I took a look. I made a couple of changes to the table headings. Can you please also add a column for the awqc-equivalents if we use the default fish consumption (7700 grams per year) and 70 yrs exposure? Call it CWA guidance defaults.

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**From:** Alexander, Shanna <Alexander.Shanna@epa.gov>  
**Sent:** Monday, September 20, 2021 3:48 PM  
**To:** Richards, Jon M. <Richards.Jon@epa.gov>; Amoroso, Cathy <Amoroso.Cathy@epa.gov>  
**Subject:** RE: request for your help

Is it okay to send this over to Glenn now or Cathy, did you want to send to Glenn?

Shanna

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**From:** Richards, Jon M. <Richards.Jon@epa.gov>  
**Sent:** Monday, September 20, 2021 1:40 PM  
**To:** Alexander, Shanna <Alexander.Shanna@epa.gov>; Amoroso, Cathy <Amoroso.Cathy@epa.gov>  
**Subject:** RE: request for your help

Looks great from what we discussed.. and sorry if I confused things on the 25% column, but I think I agree to keep it simple

And shows we not necessarily agreeing they are not  $\sim 10^{-5}$  risk

Of course I'd still add at least suggest to add below the table the Cs137 MCL of 200 pCi/L just so its somewhere on the page for Blevins to see

Jon Richards  
Regional Radiation Expert & RPM  
US EPA R4, SEMD  
[Richards.jon@epa.gov](mailto:Richards.jon@epa.gov)  
404-431-1340

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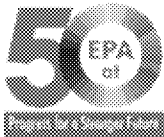
**From:** Alexander, Shanna <Alexander.Shanna@epa.gov>  
**Sent:** Monday, September 20, 2021 1:37 PM  
**To:** Amoroso, Cathy <Amoroso.Cathy@epa.gov>  
**Cc:** Richards, Jon M. <Richards.Jon@epa.gov>  
**Subject:** RE: request for your help

Please take a look at the following and let me know if you want to adjust the variable descriptions or place of order.

Below is a summary table comparing the site-specific instream water column PRGs (which are equivalent to the Clean Water Act's Ambient Water Quality Criteria) and DOE's end of pipe rad discharge limits based on DOE's proposed low and high range of assimilative capacity (i.e., 3 and 16). Also included for comparison are the current rad discharge measurements for Bear Creek and DOE's 25% DCS values.

Radionuclide*	Units	Site-Specific Instream Ambient Water Quality Criteria Equivalent (assuming 15.08 fish meals/yr)	Example DOE End of Pipe Effluent Rad Discharge Limit (assuming assimilative capacity of 3)**	Example End of Pipe Effluent Rad Discharge Limit (assuming assimilative capacity of 16)**	Current Average Discharge Measurements at the EMWMF (current landfill)	DOE 25% DCS Value
Cs-137	pCi/L	1.19	3.57	19.04	5.05	750
Sr-90	pCi/L	382	1,146	6,112	3.41	275
Tc-99	pCi/L	1,873	5,619	29,968	171	11,000
U-238	pCi/L	967	2,901	15,472	1.66	188

\*\*These are example calculations only since actual radionuclide discharge limits will be a function of the implemented engineering controls (size of pipe, water flow rate at end of pipe, flow rate of receiving body, etc.).



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**From:** Adams, Glenn <[Adams.Glenn@epa.gov](mailto:Adams.Glenn@epa.gov)>  
**Sent:** Monday, September 20, 2021 11:45 AM  
**To:** Amoroso, Cathy <[Amoroso.Cathy@epa.gov](mailto:Amoroso.Cathy@epa.gov)>; Richards, Jon M. <[Richards.Jon@epa.gov](mailto:Richards.Jon@epa.gov)>; Alexander, Shanna <[Alexander.Shanna@epa.gov](mailto:Alexander.Shanna@epa.gov)>  
**Cc:** Frederick, Tim <[Frederick.Tim@epa.gov](mailto:Frederick.Tim@epa.gov)>  
**Subject:** request for your help

I met with the John, Carol, Ramon, and Randall this morning and have need of your help.

- 1) Can one of you send me a short summary table of the instream water quality numbers for about 4 of the rads including Cs? I want to compare the value from DOE, EPA default values (CWA numbers), and using our site specific CERCLA calculations (15 meals/year)?
- 2) John asked that we reach out to Stuart, and maybe include Joel, to talk about the assumptions that the DRAT has come up with and see if OSRTI agrees or disagrees with our process. We need to know if OSRTI staff are going to fight us on this issue or agree that the CERCLA risk assessment process will work in this case.

I can meet with you if needed to discuss but I have already talked to Cathy about this.  
 Thanks,  
 Glenn

H. Glenn Adams, Chief

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